CASE SU-7152

PROCESS FOR PRODUCING N-HALOGENATED ORGANIC COMPOUNDS

Abstract of the Disclosure

The process enables highly effective N-halogenation of a compound having one or more halogenatable amido or imido functional groups in the molecule. The process involves, for example, concurrently feeding into a reactor (i) water, inorganic base, and the compound to be N-halogenated, *e.g.*, a hydantoin, and a feed of (ii) a brominating agent and/or a chlorinating agent. The proportions of these feeds are such that the pH is kept within the range of ca. 5.5-8.5 (preferably 6.5-8.5, and most preferably 6.8-7.2) and one or more of the amido or imido nitrogen atoms is substituted by a bromine or chlorine atom. A feature of the process is that it can be conducted at elevated temperatures as high as about 90°C without appreciable thermal decomposition of reactants or product. The resultant product continuously precipitates in high yield and purity. Moreover, products can be produced that are very pale yellow to almost pure white in appearance. Further, the process has been found capable of producing 1,3-dibromo-5,5-dimethylhydantoin with far larger particle sizes than previously produced on a commercial basis.